

U.S. Serial No. 10/583,513
Amendment Dated: May 7, 2010
Notice of Allowance Dated: April 6, 2010

IN THE SPECIFICATION:

Please amend the paragraph beginning on page 1, line 8 as follows:

-- In ~~the~~ conventional parking equipment, in-plane moving types, vertical-elevating types, and trans-elevator mechanical parking equipment of Tada Sogood ~~company~~Company etc., all require a transfer system. However, the transfer systems of the prior art ~~has~~have limitations, for example, the plate-exchanging type, i.e. the in-plane moving type parking equipment, ~~has~~have a low efficiency in depositing and retrieving cars; the comb-type parking equipment requires a higher parking floor, each parking place requiring a fixed comb frame, thus increasing the cost of construction. ~~The~~ Chinese Patent No. ZL99249841.4 discloses a transporting equipment for longitudinally depositing and retrieving cars. However, this equipment can only be moved in one direction due to its complex drive mechanism. In ~~the~~ Chinese Patents No. ZL99244696.1 and No. ZL02263871.7, a transporting equipment for longitudinally depositing and retrieving cars is disclosed. Although this equipment can realize a bidirectional back and forth movement, it has a complex drive mechanism for clamping and placing cars and requires different mechanisms for moving the drive mechanism -such as a motor, a reducing gear, a hydraulic drive station for driving clamping and placing movement and a sensing control system, all of which are placed within a narrow space of the transporting equipment, causing

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inconvenience to its manufacture, assembly and maintenance, ~~and it~~ Furthermore, this structure requires more steps of the clamping and placing processes as well as a complex control process, causing a longer execution time ~~for the execution~~. The parking system of the prior art also has disadvantages in that it is very difficult to apply a defined mechanism to deposit or retrieve cars having various wheelbases. Therefore, they cannot meet the industrial production requirements ~~of an industrial production~~. --

Please amend the paragraph beginning on page 2, line 13 as follows:

-- Generally, in the transferring process of the car and car chassis manufacture, assembly and storage, either a special production line mode for transferring work or a direct manual driving mode ~~are~~ is adopted for the transferring step. The former mode puts a higher demand on the earlier planning stage of production equipment preparation, whereas the latter is only of low production efficiency. --

Please amend the paragraph beginning on page 2, line 18 as follows:

-- In the process of transporting cars or car chassis by means of cars or containers, the loading and unloading process are mostly operated by directly driving cars or car chassis, but the space for operation is narrow and ~~it~~ requires higher driving skills, thus ~~it~~

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~~risks the insecurity~~causing security risks and ~~even happens that~~sometimes the door cannot be opened for drivers ~~in and out~~. Moreover, the methods for clamping cars or car chassis of the prior art cannot meet the requirement for depositing and retrieving cars of different wheelbases and require a manual adjustment during the clamping, thus consuming much longer time and are unable to meet the requirement of industrial production. --

Please amend the paragraph beginning on page 6, line 6 as follows:

Moreover, the parking system can ~~realize to~~ deposit or retrieve and transport cars or car chassis on common construction such as a concrete groundbase in a manner of bidirectional back and forth movements; ~~thus~~Thus it requires less space for operation, can be applied in a large solid parking carport, and especially can ~~save~~reduce construction costs.

Please amend the paragraph beginning on page 17, line 14 as follows:

-- Moreover, the longitudinal driving device 50 is mainly comprises two reducing motors 504, two sets of driven chains 506 and two chain rollers 502 disposed on the differential table 30. The two reducing motors 504 are mounted on the left and right sides of the front and rear ends of the loading table 30 respectively, the driving shaft of which is provided with a chain roller 508 thereon. Accordingly, the two sets of driven chains 506 and the two chain rollers 502 are also disposed on left and right side respectively. One fixing seat

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of the left/right driven chains 506 is fixed with both the front and rear end of the trolley 40 respectively, and the other fixing seat is connected with the differential table 30 by a bolt 510; the two sets of driven chains 506 are round the chain roller 502 and the chain roller 508 respectively, whose tightness can be adjusted by the bolt 510. The two chain rollers 502 are mounted on the differential table 30 as a driving roller. When the differential table 30 moves along the loading table 20, the trolley 40 and the differential table 30 perform a relative movement with a moving ratio of 2:1. The two reducing motors_504 are controlled in frequency-conversion to reduce the jitter of the chain during operation. The reducing motor 504 drives the driven chain 506 and the chain roller 502 simultaneously in dual-way by means of the chain roller 508 and further drives the trolley 40 and the differential table 30 to move back and forth. A mechanical buffer 204 is further provided between the loading table 20 and the differential table 30 to provide a damping and protection when the differential table 30 reaches the front or rear limiting position. A sensor for detecting speed reduction and positioning can be disposed longitudinally between the loading table 20 and the differential table 30 for detecting the position of the differential table 30, and for controlling the speed reduction and stop of the trolley 40 in the front, middle and rear positions by an electric control system 80 in frequency-conversion. --